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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Sol Sheinbein
GE Ehrlich (1995) Ltd
Anthony Castorina
2001 Jefferson Davis Highway Suite 207
Arlington, VA 22202

EXAMINER

CONTEE, JOY KIMBERLY

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/700,547

Applicant(s)

SOFER ET AL.

Examiner

Joy K Contee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 29 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3,5 and ~~7-10~~ are rejected under 35 U.S.C. 103(a) as being unpatentable over Kari et al., ("Kari"), U.S. 6,389,008, in view of Kirby, U.S. Patent No. 6,047,179 and Lesley, U.S. Patent No. 6,188,752.

Regarding claims 1 and 5, Kari discloses a system (and method) for enabling telephony services when roaming in a visited mobile network to a user subscribing to a home mobile network, the system comprising:

a home intelligent gateway (i.e., intra-operator GPRS backbone network coupled to a billing gateway support node (BGGSN)) integrated into said home (i.e., Operator 1) mobile network (see Fig. 1, col. 3, lines 39-46) ;

a visited intelligent gateway (i.e., intra-operator GPRS backbone network coupled to a billing gateway support node (BGGSN)) integrated into said visited (i.e., Operator 2) mobile network (see Fig. 1, col. 3, lines 39-46 and col. 4, lines 26-27); and

a global packet switch network (i.e., GPRS) connected to said home intelligent gateway and to said visited intelligent gateway (col. 2, lines 17-33).

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Thus Kari discloses the GPRS environment of a roaming mobile having an inherent home mobile network and visiting an inherent visited mobile network, in which the home intelligent gateway and visited intelligent gateway communicate via GPRS.

Kari does not explicitly disclose (a) subscriber prepaid account information within the home mobile network; and (b) wherein said home intelligent gateway and said visited intelligent gateway configured to communicate via said global packet switch network in order to manage said telephony services in real-time according to said balance.

In a similar field of endeavor, Kirby provides evidence of a debit services system for wireless units, wherein an exchange of information such as debit information is communicated between wireless networks (i.e., home and visited) (col. 11, lines 48 to col. 12, line 67).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the billing center in Kari to include subscriber prepaid account information in the home mobile network for the purpose of providing subscribers service without extensive credit card authorization validation procedures (see Kirby col. 1, lines 25-35).

However, Kari, as modified by Kirby, fails to teach (b) wherein said home intelligent gateway and said visited intelligent gateway are configured to communicate via said global packet switch network in order to manage said telephony services in real-time according to said balance.

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In a similar field of endeavor, Lesley provides evidence of prepay communications services for a subscriber in which call connections may be set up through other nodes, exchanges, and networks (e.g., packet-switched data network and radio telephone networks) (col. 6, lines 43-50).

Thus Lesley renders the suggestion of using communication between wireless networks (i.e., home and visited/or other network) via a packet-switched network such that the if prepay network service request is valid/authorized, a subscriber's database record is checked to determine whether there is sufficient prepaid value (or balance) in subscriber's database record to pay for the requested telecommunications service (col. 8, lines 26-46).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the debit service for roaming wireless units described in the combination of Kari and Kirby to include for operation in packet-switched networks as suggested in Lesley.

Regarding claim 2, the combination of Kari, Kirby and Lesley disclose the system of claim 1. Lesley further suggests, wherein said home mobile network (or local exchange 16b) has a prepaid system (i.e., billing system 40) and home intelligent gateway, includes an interface to said prepaid system (or billing system 40) (see Fig. 1, col. 4, lines 24-48).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the charging process of Kari, as modified by Kirby, to include billing in the form of user prepaid accounts, stored in the home network (or local exchange 16b),

for the purpose of affording an user this option of immediate payment, while implementing real-time billing, within the intelligent gateway.

Regarding claim 3, the combination of Kari, Kirby and Lesley meet the limitations of claim 2 and further suggest wherein said home intelligent gateway (i.e., home translator) is configured to retrieve said balance via said interface, to calculate an allowed call duration based upon said balance, and to transfer said allowed call duration in time units to said visited intelligent gateway (i.e., visited translator) (see Kirby, col. 22, lines 8-25).

At the time of the invention it would have been obvious to one of ordinary skill in the art to further modify Kari, Kirby and Lesley to include communication between home and visited networks regarding the prepaid account and call duration information for the purpose of implementing inter-network communication message regarding real-time billing (i.e., prepaid account) as suggested in Kirby (col. 9, lines 1-9).

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kari, Kirby and Lesley and in view of Saleh et al ("Saleh"), U.S. Patent No. 6,163,701.

Regarding claim 4, the combination of Kari, Kirby and Lesley disclose the system of claim 1. The combination does not explicitly disclose communication between the home mobile network and the visited mobile network using a signaling connection control part signal relay point platform.

In a similar field of endeavor, Saleh discloses wherein said system further comprises a signaling connection control part signal relay point platform, such as SCP, integrated (i.e., coupled) into said HLR for relaying signaling connection control part

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messages between said home mobile network and said visited mobile network (col. 3, lines 16-54).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combination of Kari, Kirby and Lesley to include a service control point within the home mobile network for the purpose of providing in an intelligent network communication between the home and visited network as suggested in Saleh.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kari.

Regarding claim 6, Kari discloses a method for registering a user subscribing to a home mobile network and roaming in a visited mobile network said home mobile network having a home intelligent gateway integrated therein that is connected to a global packet switch network, the method comprising the step of :

inherently registering (i.e., for roaming subscribers in the basic structure of GSM network, registration is required) said user at said visited mobile network if (i.e., the inter-operator backbone network is a required to support GPRS roaming between different GPRS networks, see col. 4, lines 24-45) said visited mobile network has a visited intelligent gateway integrated therein that is connected to said global packet switch network (col. 3, lines 25-65).

Kari does not explicitly recite refusing to register said user if said visited mobile network does not have a visited intelligent gateway integrated therein that is connected to said global packet switch network.

However, at the time of the invention it would have been obvious to one of ordinary skill in the art that a GPRS roaming subscriber would be denied registration in

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a visited mobile network if some form of intelligent gateway (e.g., inter-operator backbone couple to BGGSN) is not present to facilitate communication between different GPRS networks as suggested in Kari (col. 4, lines 26-45).

5. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirby, in view of Kari.

Regarding claims 7 and 9, Kirby discloses the method for enabling telephony services when roaming in a visited mobile network to a user subscribing to a home mobile network and having a prepaid account with a balance at said home mobile network, the method comprising the steps of:

registering said user in said visited mobile network (col. 11, lines 51-58).

Kirby fails to teach placing mobile originated (or terminated) calls from said visited mobile network if said visited mobile network has a visited intelligent gateway integrated therein that is connected to said global packet switch network.

In a similar field of endeavor, Kari discloses placing mobile originated (or terminated) calls from said visited mobile network if said visited mobile network is connected to an inter-operator backbone network (col. 4, lines 24-28).and an internal backbone network of the packet radio network including a billing gateway GPRS support node (BGGSN), wherein gateway GPRS support nodes of different operators may communicate with one another regarding billing matters (col. 5, lines 18-30). Kari also suggests wherein the BGGSN may be connected via an intelligent network to the billing center (col. 6,lines 17-28).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Kirby to include implementation of GPRS communication in a GSM or similar mobile communication system for the purpose of providing an intelligent gateway integrated into a GPRS system, which provides prepaid account or debit services.

6. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kirby and Kari, in view of Dahm et al. ("Dahm"), U.S. Patent No. 6,466,783.

Regarding claims 8 and 10, the combination of Kirby and Kari disclose the method of claims 7 and 9, respectively. The combination fails to explicitly disclose the method comprising the steps of: enabling said user to recharge said balance during a mobile originated (or terminated) call; and enabling said user to continue said mobile originated (or terminated) call if said balance has been sufficiently recharged.

In a similar field of endeavor, Dahm suggests a visual interface for mobile subscribers wherein a customer service menu is available for recharging prepaid services (col. 10, lines 6-13).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combination of Kirby and Kari to include enabling said user to recharge said balance during a mobile originated (or terminated) call; and enabling said user to continue said mobile originated (or terminated) call if said balance has been sufficiently recharged for the purpose allowing the user continue conversation upon exhaustion of prepaid balance (see Kirby, col. 1, lines 43-45).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lupien et al., U.S. Patent No. 6,389,008, discloses an integrated radio-telecommunications network and method of inter-working an ANSI-41 network and the GPRS.

Lesley, U.S. Patent No. 6,188,752, discloses a method and apparatus for providing prepaid telecommunications services.

Hartmaier et al., U.S. Patent No. 6,393,269, discloses a signaling system and method for network based prepaid wireless telephone service.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joy K Contee whose telephone number is 703-308-0149. The examiner can normally be reached on 5:30 a.m. to 2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 703-305-4379. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

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A handwritten signature in black ink, appearing to read 'J. Contee'.

Joy K. Contee
October 1, 2003

A handwritten signature in black ink, appearing to read 'Charles Appiah'.

CHARLES APPIAH
PRIMARY EXAMINER